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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/904,600	07/12/2001	Greig C. Scott	STFUP076	2591
22434 7590 04/19/2007 BEYER WEAVER LLP P.O. BOX 70250 OAKLAND, CA 94612-0250			EXAMINER ROZANSKI, MICHAEL T	
			ART UNIT	PAPER NUMBER
			3768	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/19/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

09/904,600

Applicant(s)

SCOTT ET AL.

Examiner

Michael Rozanski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 15-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 15-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-13 and 15-18 have been considered but are moot in view of the new ground(s) of rejection. With respect to amended claims 1 and 13, Young (US 5,303,707) is cited to teach of a coil arrangement carried by a probe for detecting MR signals adjacent to a region of interest, wherein the SNR would be increased (col. 3, lines 31-40). With respect to the usage of the Nowinski reference, it is restated that although the device is not particularly for MR system, the catheter and the electrode within the catheter is MR visible. Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to apply the teachings of Nowinski et al with McKinnon's disclosure above to improve the catheter device with retractable electrode.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-7, 9, 10, 12, 13 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over McKinnon (5,792,055) in view of Young (US 5,303,707) or Glowinski et al (5,868,674).

**Claims 1, 2, 5, 6, 9, 13, and 16:** McKinnon discloses a method and apparatus of imaging a region of interest using an MRI system comprising steps of placing the patient 3 in a static magnetic field from the magnet 2, applying RF excitation pulses with RF source 6 to the region of interest, and detecting MR signals with an MRI device from a region of interest with an array of at least two spaced electrodes in proximity to the region of interest where the distal ends of the electrodes include two disconnected or spaced apart RF antenna 18 and 19, insulated or shielded 20 and 21 from each other (col. 3, lines 53-65, col. 4, lines 1-24; col. 4, lines 38-65; col. 5, lines 32-43; col. 5, lines 44-63). In addition, McKinnon discloses feed wires 9 to guide the antenna to the region of interest.

However, McKinnon does not disclose electrodes (antennae) functional as a coil for detecting MR signals from tissue in a region of interest for use in imaging the tissue with increased SNR when compared to use of a surface coil. In the same field of endeavor, Young teach of a coil arrangement carried by a probe for detecting MR signals adjacent to a region of interest, wherein the SNR would be increased (col. 3, lines 31-40). Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to apply teachings of Young's coil arrangement for detecting MR signals to McKinnon's device and method in order to facilitate obtaining more localized signals.

**Claims 3 and 4:** The conducting medium being tissue for fluid site specific and McKinnon inherently discloses the limitation of the fluid or tissue medium by virtue of catheter placed in a patient's blood vessel (col. 4, lines 18-24).

**Claims 7, 10, and 17:** McKinnon in view of Young substantially disclose all claimed features in claims 7, 10, and 17 as described above. However, McKinnon is silent as to the shape of the open wire antenna. This shape of the saddle coil is well known in the art as evident by Glowinski et al as shown in figure 3, element 31 showing that the coils are arranged in saddle coil along the circumference of the catheter (col. 5, lines 15-39). Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to apply teachings of Glowinski et al's alternative coil design to McKinnon and Young in order to facilitate usage with a catheter for medical procedures.

**Claims 12 and 15:** In addition, Glowinski et al disclose that the catheter is used along with interventional instrument such as biopsy needles (col. 1, lines 57-61).

4. Claims 8, 11, and 18 are rejected under 35 U.S.C. 103 (a) as being unpatentable over McKinnon in view of Young, and further in view of Nowinski et al (6,701,173).

**Claims 8, 11, and 18:** McKinnon substantially discloses all claimed features in claims 8, 11, and 18. However, McKinnon does not disclose retractable electrodes out from within the catheter. Nowinski et al disclose the above deficiency where the retractable electrode is shown in figure 23B. Although Nowinski et al's device is not particularly for MR system, the catheter and the electrode within the catheter is MR visible. Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to apply the teachings of Nowinski et al with McKinnon's disclosure above to improve the catheter device with retractable electrode.

***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Rozanski whose telephone number is 571-272-1648. The examiner can normally be reached on Monday - Friday, 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eleni Mantis-Mercader can be reached on 571-272-4740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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